

**REMARKS**

In accordance with the foregoing, the claims **1, 3, 5, 10, 12-13 and 15** have been amended. Therefore, claims **1-15** are pending and under reconsideration, which is respectfully requested.

No new matter has been added and accordingly, entry and approval of the claims **1-15** are respectfully requested.

**STATUS OF THE CLAIMS:**

Claims **1-15** are rejected.

Claims **1, 3, 5, 10, 12-13 and 15** are amended.

Claims **1-15** are pending.

**ITEMS 1-3: REJECTION OF CLAIM 15 UNDER 35 U.S.C. 112, SECOND PARAGRAPH AS BEING INDEFINITE FOR FAILING TO PARTICULARLY POINT OUT AND DISTINCTLY CLAIM THE SUBJECT MATTER.**

The Examiner states that the term "Higher fatty acid" in claim 15 is a relative term which renders the claim indefinite. Therefore, the applicants amend as follows:

15. (Currently Amended) A polyamide composition comprising 100 parts by weight of the polyamide composition according to claim 1, and 0.001 to 1 part by weight of at least one moldability improving agent selected from C18 to C22 higher-fatty acids, metal salts of C18 to C22 higher fatty acids, C18 to C22 higher-fatty acid amides, and C18 to C22 higher-fatty acid esters.

As showing in above, higher fatty acid in claim 15 is replaced by **C18 to C22 fatty acid**. The antecedent support for this claim amendment can be found at paragraph [0058] of the application, in which it discloses that stearic acid ( $\text{CH}_3(\text{CH}_2)_{16}\text{COOH}$ ) and erucic acid ( $\text{CH}_3(\text{CH}_2)_7\text{CH}=\text{CH}((\text{CH}_2)_{11}\text{COOH})$ ) are examples of higher fatty acid.

Accordingly, the above rejection under 35 U.S.C. 112 should be withdrawn.

**ITEMS 4-7: REJECTION OF CLAIMS 1-4, 15 UNDER 35 U.S.C. 103(a) AS BEING UNPATENTABLE OVER REIMSCHUESSEL (4,397,979), ELGARHY (5,821,177) OR WAKAMURA ET AL. (2003/0004248).**

Independent claim 1 currently amended as follows:

1. (Currently Amended) A polyamide composition comprising (a) a polyamide, (b) at least one phosphorus compound selected from the group consisting of phosphoric acids, phosphorous acids, hypophosphorous acids, metal phosphates, metal phosphites, metal hypophosphites, phosphoric esters, and phosphorous esters, and (c) a soluble metal aluminate represented by the general formula  $(M_2O)_x(Al_2O_3)_Y$  (wherein  $X+Y=1$  and M is a Group 1 metal of the Periodic Table), wherein  
**the value of Y/X is  $0.35 \leq Y/X < 1.0$ ; and**  
**the molar ratio of polyvalent metal to monovalent metal in the composition (polyvalent metal/monovalent metal) is from 0.25 to 1.0.**

The antecedent support for this claim change can be found at paragraph [0037] in the application.

As shown in above, currently amended claim 1 has features: the molar ratio of Aluminum(Al) to the Group 1 metal M of the periodic Table is greater than or equal to 0.35 and smaller than 1.0; as well as the molar ratio of polyvalent metal to monovalent metal in the composition is from 0.25 to 1.0. Those features may enable inhibitory effects on yellowing and changes in molecular weight by heat history, toughness, and the like (see paragraphs [0037]-[0039] and Tables 1-4 of the application).

On the other hand, as the Examiner states: Reimschuessel discloses a blend of lithium metaphosphate and lithium aluminate in claim 1 and polyamide in claim 4; Elgarhy cites polyamide, polyphosphoric acid and a metal compound in claim 1 and sodium aluminate in column 5, line 59; and Wakamura et al. recite polyamide in claim 1, organophosphites in paragraphs 0050-0054, metal salts of fatty acids in paragraphs 0062-0063 and 0066 and sodium aluminate in paragraphs 0079 and 0083.

However, Reimschuessel, Elgarhy, or Wakamura et al. neither disclose nor suggest that  
**the molar ratio of Aluminum(Al) to the Group 1 metal M of the periodic Table is greater than or equal to 0.35 and smaller than 1.0; as well as the molar ratio of polyvalent metal to**

**monovalent metal in the polyamide composition is from 0.25 to 1.0.**

Instead, Reimschuessel discloses that the molar ratio of Aluminum(Al) to the Group 1 metal M of the periodic Table is 1.0 (see composition 2 of Table 1).

Accordingly, even combining the teaching of Reimschuesse patent with the teaching of the Elgarhy patent, or Wakamura et al. patent application publication, any one of ordinary skill in this art would not be motivated at all.

Therefore, applicants respectfully submit that an obviousness rejection cannot be based on Reimschuesse in view of Elgarhy, or Wakamura et al. and allowance of the pending independent claim 1 as amended, as well as depending claims 2-4, 15 are respectfully requested.

**ITEMS 8-9: REJECTION OF CLAIMS 1-15 UNDER 35 U.S.C. 103(a) AS BEING UNPATENTABLE OVER HACKERT (4,031,060).**

The Examiner states that Hackert reveals a process to form pigmented polyamide in claim 1, tetrasodium pyrophosphate in claim 3 and sodium aluminate in column 2, lines 65-66.

The applicants (in claim 5) discovered that excellent effects are achieved only when the molar ratio of Aluminum(Al) to the Group 1 metal M of the periodic Table is greater than or equal to 0.35 and smaller than 1.0; as well as the molar ratio of polyvalent metal to monovalent metal in the polyamide composition is from 0.25 to 1.0. For the Examiner's review, amended claim 5 lists as follows:

5. (Currently Amended) A process for producing a polyamide composition comprising a step of blending (a) at least one of a polyamide-forming component, a polyamide during a step of polymerization, and a melted polyamide with (b) at least one phosphorus compound selected from the group consisting of phosphoric acids, phosphorous acids, hypophosphorous acids, metal phosphates, metal phosphites, metal hypophosphites, phosphoric esters, and phosphorous esters and (c) a soluble metal aluminate represented by the general formula  $(M_2O)_x(Al_2O_3)_y$  (wherein  $X+Y=1$  and M is a Group 1 metal of the Periodic Table), wherein  
the value of Y/X is  $0.35 \leq Y/X < 1.0$ ; and  
the components (b) and (c) are blended so that the molar ratio of polyvalent metal to monovalent metal (polyvalent metal/monovalent metal) becomes from 0.25 to 1.0.

Hackert does not disclose or suggest the molar ratio of Aluminum(Al) to the Group 1 metal M of the periodic Table, as well as the molar ratio of polyvalent metal to monovalent metal in the polyamide composition during the polymerization process.

Accordingly, "any order of addition" and "the use of several equivalent dispersing agents" are not obvious during polymerization, any one of ordinary skill in this art would not be motivated at all. Therefore, applicants respectfully submit that an obviousness rejection cannot be based on the Hackert patent and allowance of the pending independent claims 1 and 5 as amended, as well as depending claims 2-4, 6-13, 15 is respectfully requested.

### CONCLUSION

Thus, it is believed that all rejections have been removed, and the present application is now in condition for allowance.

Reconsideration and early favorable action on the claims are earnestly solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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